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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,211	09/09/2003	Terry E. Thomas	7771-104	9150
1059	7590	10/11/2005	EXAMINER	
BERESKIN AND PARR 40 KING STREET WEST BOX 401 TORONTO, ON M5H 3Y2 CANADA			CROWDER, CHUN	
			ART UNIT	PAPER NUMBER
			1644	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/657,211

Applicant(s)

THOMAS ET AL.

Examiner

Chun Crowder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/17/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION.**

1. Applicant's election without traverse of species CD3, CD66b, and CD19 are acknowledged. Claims 1-12 read on the elected species.

Claims 1-12, drawn to an antibody composition for enriching for mesenchymal progenitor cells and species election of CD3, CD66b, and CD19 are under consideration.

2. The title is objected to because of the use of the word "novel", as patents are presumed to be novel and unobvious.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent NO: 5,877,299 as is evidenced by Kassem et al (Basic & Clinical Pharmacology & Toxicology, 2004, 95:209-214).

The '299 Patent teaches methods for preparing enriched human progenitor and stem cells from biological samples including bone marrows (see lines 24-30, column 12, and lines 4-10, column 5, in particular). Specifically, the "299 Patent teaches method for enrichment of stem cells through negative lineage depletion using antibody compositions targeting cell markers (such as CD3, CD24, CD16, CD14, CD19, CD66a, and or CD66b) on unwanted differentiated cells (see lines 38-43, column 5). The '299 Patent further teaches that the antibodies in the composition are preferably monoclonal antibodies (see lines 19-25, column 6, in particular); and the antibodies can be labeled

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with a marker such as biotin or a fluorochrome, directly or indirectly conjugated to a matrix including magnetic beads, a panning surface (see lines 56-67, column 8).

Furthermore, the '299 Patent teaches that the antibodies can be incorporated in a tetrameric antibody complex comprises the first monoclonal antibody of a first animal species and a second monoclonal antibody of the first animal species capable of binding to at least one antigen on the surface of the matrix and have been conjugated to form a cyclic tetramer with two monoclonal antibodies of a second animal species directed against the Fc-fragments of the antibodies of the first animal species (see lines 46-62, column 9 and Figure 1). Moreover, the antibody composition may include antibodies targeting erythrocytes (anti-glycophorin A antibodies) for depletion (see lines 64-67, column 13).

As is evidenced by Kassem et al that mesenchymal stem cells are one of the stem cell families (see page 212, lines 1-3 of the last paragraph on the right column).

Therefore, the reference teachings anticipate the claimed invention.

4. No claim is allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Crowder whose telephone number is (571) 272-8142. The examiner can normally be reached Monday through Friday from 8:30 am to 5:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.


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6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chun Crowder, Ph.D.

Patent Examiner

September 23, 2005

  
PATRICK J. NOLAN, PH.D.  
PRIMARY EXAMINER